

LISTING OF CLAIMS:

1. (Previously Presented) A process for obtaining carbon nanotubes bound to nanometric and/or micrometric-sized composite reinforcement supports, said process comprising

contacting the supports with a mixture of a carbon source compound and a catalyst in a stream of inert gas and hydrogen, the step of contacting being effected by chemical vapor deposition (CVD),

wherein said at least one of said supports are not SiO₂ particles or wires comprising a metallic material.

2. (Previously Presented) The process as claimed in claim 1, further comprising heating, in a reaction chamber, the nanometric and/or micrometric-sized composite reinforcement supports, to a temperature of 600-1100°C, in the stream of inert gas;

cooling the chamber down to room temperature; and

recovering the carbon nanotubes bound to the nanometric and/or micrometric-sized reinforcement supports.

3. (Previously Presented) The process as claimed in claim 2, wherein the nanometric and/or micrometric-sized composite reinforcement supports are in the form of particles or fibers.

4. (Previously Presented) The process as claimed in claim 3, wherein the nanometric and/or micrometric-sized composite reinforcement supports are formed from carbon fibers; glass fibers; SiC particles and fibers, TiC particles and fibers, Al₂O₃ particles and fibers, SiO₂ fibers, B₄C particles and fibers; or clays.

5. (Previously Presented) The process as claimed in claim 1, wherein the carbon source compound is a liquid hydrocarbon or a gaseous hydrocarbon or a solid.

6. (Previously Presented) The process as claimed in claim 1, wherein the catalyst is an iron metallocene, a cobalt metallocene, a nickel metallocene, an iron nitrate, a cobalt nitrate, a nickel nitrate, an iron acetate, a cobalt acetate, a nickel acetate, an iron sulfate, a cobalt sulfate or a nickel sulfate.

7. (Previously Presented) The process as claimed in claim 1, wherein the catalyst and the carbon source compound are used in an amount from 0.001 to 0.1 g of catalyst per ml of compound.

8. (Previously Presented) The process as claimed in claim 1, wherein the ratio of inert gas to hydrogen is 5/95 to 50/50.

9. (Previously Presented) The process as claimed in claim 2, further comprising, before said heating, depositing a silicon compound on the surface of said supports.

10. (Previously Presented) The process as claimed in claim 9, wherein the silicon compound is SiO₂ or a silane.

11-13. (Cancelled)

14. (Previously Presented) The process as claimed in claim 5, wherein the carbon source compound is an alcohol or a ketone.

15. (Previously Presented) The process as claimed in claim 5 wherein the carbon source compound is selected from the group consisting of xylene, toluene, benzene, n-pentane; ethanol, methanol; acetone, acetylene, methane, butane, propylene, ethylene, propene and camphor.

16. (Previously Presented) The process as claimed in claim 1 wherein the catalyst is Fe(II) phthalocyanine (FePc) or iron pentacarbonyl (Fe(CO)₅).

17. (Previously Presented) The process as claimed in claim 9 wherein the silicon compound is SiC, SiCl₄, SiO or SiO₂.